

NOTES FROM THE PHAENOGRAMIC HERBARIUM OF THE
NEW ENGLAND BOTANICAL CLUB,—I.

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UNDER this general heading it is proposed to publish from time to time notes, suggested primarily by specimens in the Club Herbarium, which may be of interest to members of the Club and others who are working upon the flora of New England. As material accumulates and becomes organized in the Herbarium, many gaps in our knowledge of detailed distribution become obvious and, fortunately, many specimens drift in or become accessible which add very materially to our information about the ranges of the less generally distributed species. The present instalment of notes may appropriately bear the subtitle.

SOME LOCAL PLANTS OF EASTERN AND CENTRAL MASSACHUSETTS.

BROMUS PURGANS L., often confused with *B. ciliatus* and not ordinarily recognized in the flora of eastern Massachusetts, is represented in the Club Herbarium by specimens from several stations near Boston: Malden, July 13, 1879 (*H. A. Young*), July 24, 1879 (*E. & C. E. Faxon*); Maplewood, July, 1880 (*R. Frohock*); rocky woods north of Cascade, Middlesex Fells Reservation, Melrose, June 28, 1894 (*W. P. Rich*); Warren Farm, Brookline, July 21, 1897 (*J. R. Churchill*).

BROMUS ALTISSIMUS Pursh, another relative of *B. ciliatus* which is not generally recognized from the eastern half of Massachusetts, is represented in the Club Herbarium by specimens from Ayer, August 13, 1882 (*W. H. Manning*) and Princeton, August 9, 1894 (*J. F. Collins*).

BROMUS KALMII Gray has not been recorded, apparently, as far east as Worcester County, Massachusetts. There is an excellent specimen in the Club Herbarium collected at Sturbridge, July 23, 1899, by Dr. R. M. Harper.

LOLIUM TEMULENTUM L., as represented in the Club Herbarium, was collected on dumping grounds of Lowell, Charlestown, Boston, and South Boston from 1878 to 1884; and the awnless var. *LEPTOCHAETON* A. Br. in "Boston or vic[inity], 1882." Have they persisted?

ELYMUS VIRGINICUS L., var. SUBMUTICUS Hook. There are three sheets of specimens of this very pronounced variety in the Club Herbarium, all collected in Revere by C. E. Perkins (August 13, 1880, and August 11, 1881). The plant is not known from elsewhere in New England and is possibly an introduction from the West, but the writer is inclined to class it with other species, more common from western New England westward, which are well known from Oak Island and other sections of Revere (see note under *Pedicularis lanceolatus*).

SCIRPUS HETEROCHAETUS Chase is known in New England outside the Champlain Valley only in eastern Massachusetts. Mr. F. F. Forbes has a station of it on banks of the Charles River at Cow Bay, Dedham, and the writer has seen it at the margin of the Concord River near Carlisle Bridge in Bedford.

SCIRPUS FLUVIATILIS (Torr.) Gray, another species not commonly seen east of the Connecticut River, was collected by Mr. W. H. Manning at Brighton (on the Charles River), June 30, 1879. Does it still occur there?

RYNCHOSPORA ALBA (L.) Vahl, var. MACRA Clarke, a very large extreme of the species, more abundant on the coastal plain from New Jersey to Florida, is known to the writer from two stations in eastern Massachusetts: Fresh Pond, Cambridge, August 20, 1853 (*Wm. Boott*) and the wetter portions of the bog, Round Pond, Tewksbury, September 18, 1909 (*M. L. Fernald & A. J. Eames*). The Tewksbury specimens are nearly 8 dm. high, and their principal inflorescences 2 cm. broad.

CAREX AENEA Fernald, not included in Mr. Joseph Jackson's recent (1909) Flora of Worcester County, was collected by Wm. Boott on Mt. Wachusett, June 27, 1878.

CAREX TRISPERMA Dewey, var. BILLINGSII Knight. If one may judge by the representation in the Club Herbarium, this recently recognized setaceous-leaved variety is about as common in northeastern Massachusetts as the typical broader-leaved form of the species; the latter being represented by eight specimens, the former by seven: from Lynnfield, Tewksbury, Littleton, Wakefield and Melrose, all north of Boston. But, since the variety extends from the sandy bogs of central Newfoundland to the pine barrens of New Jersey, it should be expected, also, in the cranberry bogs of southeastern Massachusetts, a region from which we have altogether too little herbarium material.

CAREX CRINITA Lam., var. SIMULANS Fernald. A sheet of specimens collected at Ashburnham, June 18, 1896, by Mr. Sydney Harris, represents an extreme southern station for this comparatively northern variety, which is otherwise unrepresented in the Herbarium from south of the White Mountains.

CAREX AQUATILIS Wahlenb. Well developed fruiting tips from Georgetown, collected by the late Mrs. C. N. S. Horner, are the only specimens known to the writer from eastern Massachusetts. *C. aquatilis* is thus added to that list of very interesting species, characteristic of calcareous western New England but ordinarily unknown from eastern Massachusetts, which have long been known from isolated stations in Georgetown, Boxford, Lynnfield, and neighboring towns; a region of more numerous calcareous outcrops than other portions of eastern Massachusetts.¹ This localized flora includes such species as *Carex livida*, *Spiranthes lucida*, *Salix candida*, *Caulophyllum thalictroides*, *Parnassia caroliniana*, *Potentilla fruticosa*, *Ceanothus ovatus*, *Veronica Anagallis-aquatica*, *Senecio obovatus*, &c.

CAREX TORTA Boott. Ashburnham, May 24, 1896 (*Sydney Harris*). Southbridge is the only station recorded in Jackson's Flora of Worcester County.

CAREX VIRESCENS Muhl., var. SWANII Fernald, not included in Jackson's Flora of Worcester County, was collected on the east slope of Mt. Wachusett, alt. 1400 ft., July 15, 1893, by Professor J. F. Collins.

CAREX AESTIVALIS M. A. Curtis. It is not generally known, apparently, that this attractive species (like small-fruited *C. gracilima* with pubescent sheaths) was collected in eastern Massachusetts by William Boott. Beautiful material, labelled by Boott himself and properly named, is in the Gray Herbarium from Lexington, collected July 2, 1876. Is the station now "improved" away?

CAREX WILLDENOWII Schkuhr is another species not generally known to botanists of eastern Massachusetts. It was included in Dame & Collins's Middlesex Flora from Melrose; and specimens labeled by William Boott, "Malden [Melrose], above the Waterfall, on the west side of a path, June 11, 1863," as well as earlier material from Boott, collected June, 1853, are in the Gray Herbarium. In the Club Herbarium is also a characteristic specimen from "dry woods, Ponkapog, Randolph, Mass., June 26, 1897" (*J. R. Churchill*).

¹ See Sears, Geological Map of Essex County (1905).

CAREX PLANTAGINEA Lam. Ashburnham, April 26 and May 17, 1896 (*Sydney Harris*). Listed in Jackson's Flora of Worcester County only from Southbridge.

CAREX DIGITALIS Willd. Hillside north of Echo Lake, Princeton, July 17, 1893 (*J. F. Collins*). No definite station cited in Jackson's Flora of Worcester County.

CAREX LAXIFLORA Lam., var. LEPTONERVIA Fernald. This comparatively northern and montane variety is represented in the Club Herbarium by three sheets from the eastern and central portion of Massachusetts: Waverly, June 9, 1861 (*Wm. Boott*); Ashburnham, May 17, 1896 (*Sydney Harris*); damp shades, Southbridge, May 17, 1899 (*R. M. Harper*).

CAREX HIRTA L., a European species, is represented in the Gray Herbarium by material collected in 1878 near Hammond Pond, Newton, by Messrs. E. & C. E. Faxon and by specimens from "Grove," Medford, July 16, 1884 (*Wm. Boott*); and in the Club Herbarium by a poor but recognizable specimen from Melrose, June 7, 1882 (*C. E. Perkins*). In Dame & Collins's Middlesex Flora other stations are cited, but the species does not seem to have been recently collected. Is it extinct?

CAREX ACUTIFORMIS Ehrh. is another Old World species which was once established in our flora, but which may now be extinct. It formerly grew in a swamp ("border of salt marsh" one label reads) at Savin Hill in Dorchester, and in 1886 was said by Professor L. H. Bailey to be "thoroughly established at Dorchester, Mass.; boggy meadow, New Bedford, Mass., *Willey*."¹ The New Bedford plant has apparently not been collected by recent botanists and the most recently collected specimens from Savin Hill seen by the writer are dated August 9, 1884. These stations should be sought.

CAREX PSEUDO-CYPERUS L. Wet meadow, Southbridge, altitude 640 feet, June 14, 1899 (*R. M. Harper*). Listed in Jackson's Flora of Worcester County only from Fitchburg.

CAREX INTUMESCENS Rudge, var. FERNALDII Bailey. Rich damp woods, Southbridge, altitude 645 feet, June 27, 1899 (*R. M. Harper*). Not included in Jackson's Flora of Worcester County.

COLCHICUM AUTUMNALE L. Early in October, 1909, this beautiful species was found in some abundance, by the writer and a party of his students, established in a meadow between Carlisle and Concord.

¹ L. H. Bailey, Proc. Am. Acad. xxii. 76 (1887).

POLYGONATUM LATIFOLIUM Desf. Several plants of this Eurasian species grow by the roadside in slight shade, near the Concord River in Concord, where they were first noticed by the writer May 24, 1909. Since this species with comparatively thick green-tipped perianths is commonly cultivated it is possible that the references, in the Report on the Flora of the Boston District (RHODORA x. 130) to *P. giganteum* as "escaped" and "introduced," belong rather to *P. latifolium*.

BERTEROA MUTABILIS (Vent.) DC., a large-fruited species but recently recognized in our flora, is in the Club Herbarium from a "roadside" in Dedham, August 22, 1897 (*E. F. Williams*). Similar material in the Gray Herbarium, collected by W. P. Rich, bears the data: "roadside, border of cultivated ground." Another Massachusetts specimen in the Gray Herbarium comes from Hingham, September, 1894 (*T. T. Bouvé*).

SISYMBRIUM OFFICINALE (L.) Scop. The typical plant, with pubescent pods, is in the Club Herbarium from a "dump, West Cambridge, Mass., July 10, 1909 (*C. A. Weatherby*).

POTENTILLA REPTANS L. has been a weed in the lawn in front of the Gray Herbarium in Cambridge for at least ten years. It was first noticed in June, 1900, and in spite of resodding and alterations of the lawn and terrace still holds its own.

GEUM URBANUM L. is abundantly established by roadsides and borders of fields in the neighborhood of the Botanic Garden in Cambridge. The earliest evidence of this colony is a specimen in the Gray Herbarium collected by Professor L. H. Bailey and labeled "Cambridge, Mass., Aug., 1884. Thoroughly established."

AGRIMONIA MOLLIS (T. & G.) Britton. It is apparently not generally known to botanists of eastern Massachusetts that *A. mollis* occurs at Winchester. It was first found by the writer on the wooded diorite talus of Horn Pond Mountain, October 14, 1906; and the station, where the plant occurs in some abundance with *Polygonum dumetorum* L., has since been regularly visited in September or October.

TRIFOLIUM MEDIUM L. is either a much more local plant than is ordinarily supposed or it is very rarely collected. As represented in the Club Herbarium and the Gray Herbarium, it seems to be confined to eastern Massachusetts: "Boston, perhaps introduced?" (old specimen without date); "In pascuis et pratis siccis (ex Europa advenam) ad *Danvers*" (*Wm. Oakes*); shady pastures about Salem,

July, 1863 (*J. L. Russell*); oak woods and rocky banks, North Salem, July 10, 1901 (*J. H. Sears*).

MELILOTUS INDICA (L.) All. should be watched for in waste lands. It is represented in the Club Herbarium or the Gray Herbarium by the following New England specimens, all from eastern Massachusetts: dump, Dracut, August 6, 1884 (*C. W. Swan*); Charlestown, July 4, 1879 and July 23, 1881 (*C. E. Perkins*); Charles River dumping grounds near Mt. Auburn, Cambridge, 22 August, 1897 (*B. L. Robinson*).

DESMODIUM CANESCENS (L.) DC. is so rare in Middlesex County as to be practically unknown to local botanists. It was collected by the late William Boott at at least two stations, as shown by his labels: "W. Cambridge, roadside opposite W. Niles's house," August 15, 1853, and August 24, 1854; and "roadside, Winchester, opposite Everett's," August 22, 1869. Are these stations still in existence?

LINUM FLORIDANUM (Planch.) Trel. is a plant which has but recently been known in New England. It was collected August 7, 1902, by Mrs. Clara Imogene Cheney in a bog at Centerville on Cape Cod and a beautiful sheet of Mrs. Cheney's material is preserved in the Club Herbarium.

MYRIOPHYLLUM ALTERNIFLORUM DC. Twenty years ago this boreal species was unknown from the continent of North America, but in 1891 Morong¹ recorded it from Lake Temiscouata (coll. *Northrop*) and Lake Memphremagog (coll. *Churchill*) in Quebec. Gradually our knowledge of its American distribution has increased until we now know it to be common from eastern Newfoundland to western Maine and to occur, perhaps locally, south to Massachusetts and west to Lake Superior.² The Massachusetts specimens, as representing the southern limit of the species, as far as known, are worthy special record; and it is also worthy of note that some of them were collected but unrecognized many years before the plant was recorded as a native of North America. The Massachusetts specimens thus far known are: Mystic Pond, August 26, 1853, and August 6, 1865 (*Wm. Boott*); Westford, September 2, 1902 (*Miss E. F. Fletcher*); Sprague's Pond, Readville (*C. E. Faxon*). The material from Sprague's Pond was mixed with *M. ambiguum*, forma *capillaceum*, a comparatively

¹ Morong, Bull. Torr. Bot. Cl. xviii. 242 (1891).

² Collected on Isle Royale, Michigan, August 6, 1909, by W. S. Cooper.

southern plant, so that it is not unreasonable to expect that *M. alterniflorum* may yet be found south of its present known limit.

STACHYS AMBIGUA (Gray) Britton, recently reported by Professor Wiegand (RHODORA, xi. 83) for the first time in New England, proves to have been collected several times in eastern Massachusetts. The Club Herbarium contains the following specimens: Lowell, near the Concord River, July 14, 1880 (*C. W. Swan*); in gravelly soil back from Newton Waterworks Basin, Needham, July 18, 1902 (*H. A. Purdie*); meadows, Charles River, Needham, August 26, 1905 (*J. R. Churchill*); boggy meadows, Sharon, July 12, 1896 (*W. P. Rich, E. F. Williams*). These stations and those already cited by Professor Wiegand indicate that the plant is somewhat generally distributed in the valleys of the Concord, Charles, and Neponset Rivers.

LYCOPUS EUROPAEUS L. This coarse species has grown in waste land and neglected yards about the "Tin Cañon" in Cambridge for at least sixteen years. The earliest collection was made by Professor B. L. Robinson in October, 1894.

HYOSCYAMUS NIGER L. The Henbane, which was recorded from New England by Josselyn in 1672;¹ in the days of Manasseh Cutler (1785) was "common amongst rubbish, and by road sides";² by Jacob Bigelow, in 1814, was included in the *Florula Bostoniensis* from "waste grounds"³ and in 1840 from "roadsides, &c.,"⁴ is now one of our rarest plants and it is not improbable that it has entirely disappeared from our Massachusetts flora. In the Gray Herbarium there are no specimens from south of Maine, where it is very local and has a bare foot-hold, but in the Club Herbarium are two specimens: Boston, July 15, 1880 (*C. E. Perkins*); Somerville, September 25, 1886 (*F. S. Collins*). In the *Flora of Essex County*, Mr. John Robinson cites two old stations only besides an indefinite "Essex County" of William Oakes and makes the comment that "*Hyoscyamus niger* and *Artemisia Absinthium* (Wormwood), spoken of by Dr. Cutler and other earlier writers as common in waste places, are now very rare or unknown."⁵ That *Hyoscyamus* should have passed so completely from our flora, when a century and a quarter

¹ Josselyn, *N. E. Rarities*, 86 (1672); Tuckerman reprint, 114.

² M. Cutler, *Mem. Am. Acad.* i. 419 (1785).

³ Bigelow, *Fl. Bost.* 52 (1814).

⁴ Bigelow, *Fl. Bost.* ed. 3, 84 (1840).

⁵ J. Robinson, *Fl. Essex Co.* 15 (1880).

ago it was an established weed, is of peculiar interest, for throughout the longer-settled regions of calcareous sections of Quebec, from the city of Quebec to the base of the Gaspé Peninsula, it has maintained its weed-character and its slimy foliage and lurid flowers are familiar to nearly everyone who takes special note of the vegetation.

PEDICULARIS LANCEOLATA Michx. is not generally recognized from east of the Connecticut. In the Club Herbarium, however, is a sheet of *P. lanceolata*, originally in the collection of the Middlesex Institute, labeled: "Revere just over the line [from Middlesex County]. *Moody*." As far as the writer is informed no one else has recently seen this plant in eastern Massachusetts and it is feared that its tall stature and rather showy flowers long ago led to its extinction. The plant is worthy special note not only as a rare species which is now probably extinct but as another member of the peculiarly rich and isolated flora (typical from western New England westward) for which the town of Revere (including Oak Island)¹ has been famous since the days of Jacob Bigelow, a flora including several species unknown or almost unknown elsewhere in eastern Massachusetts: *Elymus virginicus*, var. *submuticus* (see above), *Amphicarpa Pitcheri*, *Sanicula gregaria*, *Agastache scrophulariaefolia*, *Collinsonia canadensis*, *Scrophularia marilandica*, *Aster salicifolius*, &c.

CAMPANULA ULIGINOSA Rydberg. Many local botanists have expressed surprise that this species as well as *C. aparinoides* Pursh, is found in our territory. It is in the Club Herbarium from Rock Pond, Georgetown and from South Georgetown (*Mrs. Horner*) and in the Gray Herbarium from Concord (*J. M. Greenman*), Fresh Pond, Cambridge (*Wm. Boott*), and Sharon (*S. F. Poole*).

HELIANTHUS MAXIMILIANI Schrad., recently reported from scattered eastern stations, was found by Mr. F. S. Collins in a "rather sandy field" by Wright's Pond, Middlesex Fells, August 29, 1909.

GALINSOGA CARACASANA (DC.) Sch. Bip. appeared as a weed in the Botanic Garden, Cambridge, in 1909, and is thriving this year, the coarse sprawling stems often measuring more than 1 m. in length.

GRAY HERBARIUM.

¹ See H. A. Young, Bull. Essex Inst. xiv. 141-157 (1882); Reprint 1-19 (1883). W. P. Rich, RHODORA, iv. 87-94 (1902).